## PHILIPS

Horticulture LED Solutions

GreenPower LED production module 3.0



## Full control and flexibility to optimize multilayer crop cultivation

Whether you use a multilayer system to grow the crispiest lettuce, the tastiest basil, or other vegetables or fruits, the GreenPower LED production module 3.0 enables you to optimize your lighting for every single crop to reach your business goals. Gain an edge in your market by tuning our dedicated light recipes to accommodate different growth stages, pre-harvest treatments, new crops. Thanks to the wide beam optics and high light output, this robust all-round module will prove to be a very economic investment.

Our GreenPower LED production module 3.0 has been developed for growers who are looking for more flexible and cost-efficient ways to use LED grow lights to improve crop results and operational efficiency in closed, climate-controlled cultivation facilities. This module is ideal for multilayer systems to grow:

- Lettuce and other leafy greens
  Herbs
- Soft fruitsYoung plants

#### The best light for every crop

With our solution you can easily adapt the color spectra and light levels of various dedicated light recipes to meet the needs of different crops and growth phases.

By optimizing these parameters, you can improve the quality, consistency and yield of your fresh produce. You can also steer specific plant characteristics, such as compactness, color intensity and taste to fit local customer and market requirements. This can be easily managed via the Philips GrowWise Control System on your PC, tablet or smartphone.

### **Key benefits**

- Adjust color and light level to optimize the growth cycle
- Less modules needed due to wide beam optics
- Provides high light output to maximize crop growth

# Make the most of your lighting

#### Full flexibility

The production module 3.0 is available in different versions and lengths to fit your preferences. The standard on-off modules come with our proven light recipes. The controllable versions allow color and light levels to be adjusted, and can be used with the GrowWise Control System (GWCS), stand-alone or integrated in your climate computer. This gives you full flexibility to create and control of your own time-based recipes.

#### **Cost effective solution**

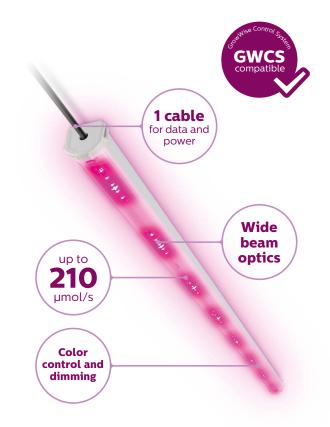
The unique combination of high light output and widebeam optics means you can install 50% fewer modules, driving down your initial investment. Operational costs are low thanks to its robust design, high energy efficiency and long lifetime. Optimize your use of energy and light, by adapting the light level to different growth stages and reflecting light off our white housing. You can count on consistent production with the very high light uniformity – day after day.

#### **Easy installation**

The modules are compatible with standard Wieland connectors, which can be easily connected and disconnected and comply with IP66 and UL ratings for wet conditions. We offer 3 standard mounting brackets for easy installation in any multilayer set-up.

#### **Expert support**

Your Philips LED lighting solution is backed by expert know-how and support to help you achieve the best results and maximum profit for your specific situation. You benefit from our unique light recipes for a variety of crops, which are the result of years of research by our plant specialists and collaborations with leading horticultural research facilities.



#### **Product specifications**

| Spectrum            | DR/B   |        |     |     |           |                | DR/B/FR |       |               |                    |             | DR/W   |                    |              | DR/W/FR |        |       |               |       | DR/B/W/FR          |       |        |        |       |       |
|---------------------|--------|--------|-----|-----|-----------|----------------|---------|-------|---------------|--------------------|-------------|--------|--------------------|--------------|---------|--------|-------|---------------|-------|--------------------|-------|--------|--------|-------|-------|
| Length (cm   ft)    |        | 120 4  |     | 150 | 150 5 120 |                | 150 5   | 120 4 | 150 5         | 240 8 <sup>1</sup> | 120 4       | 150 5  | 240 8 <sup>1</sup> | 120 4        | 150 5   | 120 4  | 150 5 | 120 4         | 150 5 | 240 8 <sup>2</sup> | 120 4 | 150 5  | 240 8² | 120 4 | 150 5 |
| Blue level          |        | LB     | HB  | LB  | HB        | -              | -       | LB    | LB            | LB                 | -           | -      | -                  | LB           | LB      | -      | -     | LB            | LB    | LB                 | -     | -      | -      | -     | -     |
| Туре                |        | Static |     |     | Color     | control Static |         |       | Color control |                    | Static Colo |        | Color              | olor control |         | Static |       | Color control |       | Color control      |       |        |        |       |       |
|                     |        |        |     |     |           | 2 cha          | nnels   |       |               |                    | 3           | channe | ls                 |              |         | 2 cha  | nnels |               |       |                    | 3     | channe | ls     | 4 cha | nnels |
| Typical photon flux | µmol/s | 168    | 168 | 210 | 210       | 0-168          | 0-210   | 168   | 210           | 210                | 0-168       | 0-210  | 0-210              | 168          | 210     | 0-168  | 0-210 | 168           | 210   | 210                | 0-168 | 0-210  | 0-210  | 0-168 | 0-210 |
| Power nominal       | W      | 56     | 59  | 70  | 74        | 0-77           | 0-97    | 56    | 70            | 70                 | 0-77        | 0-97   | 0-97               | 63           | 79      | 0-77   | 0-97  | 63            | 79    | 79                 | 0-77  | 0-97   | 0-97   | 0-77  | 0-97  |
| Efficacy            | µmol/J | 3.0    | 2.8 | 3.0 | 2.8       | ≤ 3.0          | ≤ 3.0   | 3.0   | 3.0           | 3.0                | ≤ 3.0       | ≤ 3.0  | ≤ 3.0              | 2.7          | 2.7     | ≤ 2.7  | ≤ 3.0 | 2.7           | 2.7   | 2.7                | ≤ 2.7 | ≤ 2.7  | ≤ 2.7  | ≤ 3.0 | ≤ 3.0 |

|                              |          | 120                   | 150                             | 240                         |  |  |  |  |  |  |
|------------------------------|----------|-----------------------|---------------------------------|-----------------------------|--|--|--|--|--|--|
| Length                       | cm   ft  | 120   4               | 150   5                         | 240   8                     |  |  |  |  |  |  |
| Weight (driver included)     | kg   lbs | 1.25   2.76           | 1.45   3.20                     | 2.05   4.52                 |  |  |  |  |  |  |
| Typical photon flux          | µmol/s   | 168                   | 210                             | 210                         |  |  |  |  |  |  |
| Power (nominal   max.)       | w        | 56-63   77            | 70-79   97                      | 70-79 97                    |  |  |  |  |  |  |
| Efficacy                     | µmol/J   | Up to 3.0             |                                 |                             |  |  |  |  |  |  |
| Beam width                   |          | 140°                  |                                 |                             |  |  |  |  |  |  |
| Power input <sup>3</sup>     | VAC      | 120-277               | 120-277                         |                             |  |  |  |  |  |  |
| Power factor                 |          | > 0.9                 |                                 |                             |  |  |  |  |  |  |
| Rated average lifetime** hrs |          | L90, 36,000 hrs       |                                 |                             |  |  |  |  |  |  |
| Ingress protection rating    |          | IP66   UL Suitable fo | or Wet locations                |                             |  |  |  |  |  |  |
| Cooling                      |          | Passively air-cooled  |                                 |                             |  |  |  |  |  |  |
| Approval marks               |          | CE, UL, CSA, RCM, F   | PSE                             |                             |  |  |  |  |  |  |
| Warranty                     |          | 3 years               |                                 |                             |  |  |  |  |  |  |
| Accessories                  |          | Comprehensive ran     | ge of accessories available for | easy and guick installation |  |  |  |  |  |  |

| Legend |             |  |  |  |  |
|--------|-------------|--|--|--|--|
| DR     | = Deep Red  |  |  |  |  |
| В      | = Blue      |  |  |  |  |
| FR     | = Far Red   |  |  |  |  |
| w      | = White     |  |  |  |  |
| LB     | = Low Blue  |  |  |  |  |
| ΗВ     | = High Blue |  |  |  |  |
|        |             |  |  |  |  |
| 1 Not  | for Japan.  |  |  |  |  |

<sup>2</sup> Japan only.

<sup>3</sup> 50-60 Hz.

<sup>4</sup> Lifetime and maintenance values are given at an ambient temperature of 25 °C | 77 °F. All measured lifetimes are industry standard measurements indicating average length of operation and not a performance claim specific to any individual product.



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